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TITLE: RACK FOR REDUCED HEIGHT WASHING COMPARTMENT

BACKGROUND OF THE INVENTION

Dishwashers typically have a door which can be opened to provide access to the dishwashing chamber, and upper and lower racks to hold dishes, bowls, glasses, cups, and other objects to be washed. One of the racks is normally designed to hold dinner plates, serving platters, and other tall objects, while the other rack has limited vertical space or clearance such that dinner plates and the like will not fit. More contemporary dishwashers include a pull-out upper drawer which is shallow so as to have limited vertical space for dinner plates and the like. However, it is sometimes desirable to be able to place taller objects, such as dinner plates, in the shallower rack or drawer for washing.

Accordingly, a primary objective of the present invention is the provision of an improved dishwasher rack adapted to hold tall objects having a height greater than the vertical clearance above the rack.

Another objective of the present invention is the provision of a dishwasher rack having foldable tines to allow objects such as dinner plates to be tilted or leaned so as to fit within the dishwasher chamber for washing.

A further objective of the present invention is the provision of a dishwasher rack having first and second rows of adjustable tines, with each row being independently foldable with respect to the other row.

Another objective of the present invention is the provision of an improved dishwasher rack having two sets of tines, with the lower ends of the tines being fixed relative

to one another and the upper ends of the tines being spaced progressively farther apart from one another as one or both of the sets are folded from an upright position to the lowered position, such that a dinner plate supported by the tines will be tilted progressively farther from a vertical plane as the tines are folded outwardly toward the lowered position.

Still another objective of the present invention is the provision of an improved dishwasher rack having adjustable tines, which is economical to manufacture and durable in use.

These and other objectives will become apparent from the following description of the invention.

BRIEF SUMMARY OF THE INVENTION

The dishwasher rack of the present invention includes a bottom wall, a front wall, a back wall, and opposite side walls. First and second sets of tines are pivotally mounted in the rack so as to be foldable between an upright position and a lowered position. Clip members associated with each set of tines allow each set to be retained in one or more positions between the upright and lowered positions. The lower ends of each set of tines are fixed relative to one another while the upper ends are independently adjustable such that tall objects to be washed, such as dinner plates, can be leaned or tilted from a vertical plane so as to fit within the dishwasher chamber.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of the dishwasher rack of the present invention.

Figure 2 is a plan view of the dishwasher rack of the present invention.

Figure 3 is a side elevation view of the dishwasher rack of the present invention.

Figure 4 is a side elevation view of the rack showing the tines in an upright position.

Figure 5 is a side elevation view showing the tines in an intermediate position between the upright and lowered positions.

Figure 6 is a sectional view taken along lines 6-6 of Figure 2.

Figure 7 is an enlarged perspective view of the clip which is a part of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

The dishwasher rack of the present invention is generally designated in the drawings by the reference numeral 10. The rack is generally rectangular and made of a wire-type construction. The rack 10 includes a bottom wall 12, a front wall 14, a back wall 16 and opposite side walls 18, 20. As seen in Figures 4 and 5, the bottom wall 12 may be stepped to hold cups and glasses, and sloped to allow for drainage of rinse water from the tops of objects being washed in the dishwasher. The rack 10 also includes a plurality of tines 22 to support objects being washed in the dishwasher.

The above construction of the rack 10 is conventional and does not constitute a part of the present invention.

The present invention is directed towards adjustable tines 25, 27 which allow tall objects, such as dinner plates, platters, and the like to be placed in the rack 10 at an angle so as to fit within the dishwasher chamber for washing. More particularly, the rack 10 includes first and second sets or rows 24, 26 of tines 25, 27. The tines 25, 27 in each of the first and second sets 24, 26 extend upwardly from horizontally disposed legs 28, 30, respectively. The legs

28, 30 have opposite ends which are pivotally mounted within bushings 32 attached to the bottom wall 12 of the rack 10, such that the tines 25, 27 are foldable between an upright position substantially perpendicular to the bottom wall 12 and a lowered position substantially parallel to the bottom wall 12. Each set 24, 26 of tines 25, 27 is thus foldable independent of the other set. A pair of clip members 34 are provided on the rack 10 adjacent the back wall 16 thereof. Each clip member 34 includes a plurality of spaced apart protrusions 36. Each clip 34 has resilient members 35 to mount the clip on the wire rack 10. An upstanding arm 38 on each leg 28, 30 is adapted to be received and retained between pairs of the spaced apart protrusions 36 of the clip member 34 to retain the tines 25, 27 in a selected position between the upright and lowered positions. The tines 25, 27 are shown in the upright position in Figure 4 and in one of the intermediate positions in Figure 5.

Thus, the lower ends of the tines 25, 27 are fixed relative to one another, while the upper ends of the tines 25, 27 are spaced progressively further apart as the tines are folded or pivoted from the upright position to the lowered position. In other words, the spacing between the pair of tines 25A, 27A and the next pair of tines 25B, 27B is constant, while the lateral spacing between the upper ends of tines 25A and 27A, and between the upper ends of tines 25B and 27B, is adjustable.

When dinner plates or the like are placed between adjacent pairs of tines 25, 27, the plate will stand more upright when the tines 25, 27 are in the upright position, and the plate will be tilted or leaned progressively rearwardly as the tines 25, 27 are moved toward the lowered position. Therefore, plates and the like having a height or diameter greater than the vertical clearance above the rack

10 can still be placed in the rack 10 for washing, since the plate will be tilted to fit within the space above the rack 10.

Preferably, the tines 25, 27 are angled rearwardly and are stepped, as best seen in Figures 1 and 3. It is understood that the precise shape of the tines and the location of the tines can be varied from that shown in the drawings.

The invention has been shown and described above with the preferred embodiments, and it is understood that many modifications, substitutions, and additions may be made which are within the intended spirit and scope of the invention. From the foregoing, it can be seen that the present invention accomplishes at least all of its stated objectives.

FOOTNOTES